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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/338,744 06/23/99 WHITE J 04873/958302

EXAMINER

LM02/0412

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ART UNIT PAPER NUMBER

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/338,744

Applicant(s)

WHITE, JAY PAUL

Examiner

Benjamin C. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19,22 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19,22 and 25-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892)
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 16) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 17) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 18) ☐ Notice of Informal Patent Application (PTO-152)
- 19) ☐ Other:

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RESPONSE TO AMENDMENT

Claim Status

1. Claims 19, 22 and 25-35 are pending in the application.

Claim Rejections - 35 USC § 103

2. Claims 19, 22 and 25-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Loomis et al.** (US pat. #5,563,607) in view of **Hertel** (US pat. #5,751,246).

1) In considering claim 19:

a) **Loomis et al.** teaches article or location tagging in asset management, inventory management, logistics and asset tracking applications, or precise deployment of an asset at a selected location (col. 7, lines 5-25 and col. 8, lines 27-41) by determining the location at which an item is to be stored by recording a GPS signal received by a transceiver positioned at the location (col. 7, line 49-59); processing the GPS signal to determine the storage location (col. 7, line 60 to col. 8, line 17); determining the identity of the item from scanning a symbol associate with the item (inherent function of the bar-code reader connected to the GPS-equipped rover unit according to col. 7, lines 8-11 and 42-48 in view of the intended applications disclosed in col. 7, lines 5-25 and col. 8, lines 27-41);

except:

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b) specifying the claimed storing items in a storage facility, wherein the storage facility is a warehouse or other facility in which the items are stored in defined storage locations such as shelves or bins;

c) specifying claimed associating the storage location and identity in a database.

Loomis et al. teaches storing the identification data of an article tagged along with the error-corrected GPS location in an unspecified memory means (col. 7, lines 7-20) without specifying associating the storage location and identity in a database. However, since the GPS-equipped rover unit having the connected bar-code reader of **Loomis et al.** is for use in the applications of article or location tagging in asset management, inventory management, logistics and asset tracking, or precise deployment of an asset at a selected location type applications, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that the storage location and the tagged article identity need to be associated in the memory means to enable look-up and retrieval functions of the above indicated applications, which memory means can be in the form of a database when the number of tagged articles is large.

Loomis et al. method/system is for use in the applications of article or location tagging in asset management, inventory management, logistics and asset tracking, or precise deployment of an asset at a selected location type applications. It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that a system/method such as taught by **Loomis et al.** can specifically include the monitoring of the existence, location and status of items being

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stored in or transported to/from various storage locations including a warehouse and various other storage facilities.

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention that the method/system such as taught by **Loomis et al.** would have worked just the same whether the storage facility has or lacks defined storage locations such as shelves or bins.

Furthermore, the concept of tracking the GPS location of items associated with storage shelves or bins in a facility to aid in easy location/retrieval has been known in the art, such as taught by **Hertel** (Abstract and Fig. 3, etc., wherein the system also teaches use of a database). Therefore, in view of the teachings by **Loomis et al.** and **Hertel**, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that in a method/system such as taught by **Loomis et al.** for associating¹¹ the location and item information for applications of article or location tagging in asset management, inventory management, logistics and asset tracking, or precise deployment of an asset at a selected location type applications, if the storage facility is in the form of warehouse shelves or bins, the GPS location data can be associated with such shelves or bins such as taught by **Hertel** without unexpected results.

2) In considering claim 22, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 19, including:

--the claimed wherein the storage facility is a retail store in which the items are stored on display racks or shelves (Abstract of **Hertel**).

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3) In considering claim 25, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 19, including:

--the claimed wherein the symbol associated with the item is a bar code symbol is inherently met by the bar-code reader of **Loomis et al.** for obtaining the identification data of the item desired for monitoring.

4) In considering claims 26-27, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 25, except:

--specifying whether the bar-code scanner is the claimed hand held type, wherein the scanning is done when the item is stored or when the item is removed from storage.

However, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that choosing a hand held type bar code scanner in a method/system such as taught by **Loomis et al.** and **Hertel** rather than a stationary one provides more convenience and flexibility for the operator to scan items of various sizes and shapes. Furthermore, since the system taught by **Loomis et al.** and **Hertel** is for inventory purposes also, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that the scanning would have been done when the item is stored as well as when the item is removed from storage.

5) In considering claims 28 & 30, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 19, including:

--the claimed wherein the GPS signal received by the transceiver is corrected to remove errors by comparing the GPS signal to a GPS signal received at a base station at a known

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location, wherein the location error is removed at a later time by recording the time at which the transceiver recorded the GPS signal and simultaneously recording another GPS signal at a base station of a known location so that correction factors derived from the GPS signal recorded at the base station is used to remove the location error for the transceiver at corresponding time (col. 3, lines 51-64; col. 7, lines 7-25 and col. 7, line 52 to col. 8, line 17 of **Loomis et al.**).

6) In considering claim 29, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 28, wherein:

--**Loomis et al.** disclosed the known method of location error removal in real time by establishing communication between the transceiver and the base station, but opted for a near real-time correction method in which a communication link having significant delays is suffice for its error correction purpose due to the recognized lack of a low latency, high speed (real-time) transmission link between the base station and the transceiver in some application environments (col. 2, line 33 to col. 3, line 64). However, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that if the intended application environment for a system/method such as taught by **Loomis et al.** and **Hertel** already has a high-speed communication link for the transceiver and the base station that enables real time or low latency position error correction, the real time method can be used and the time data and its corresponding time data recording and transmission hardware/software requirements need not be included to simplify the overall system and thereby reducing cost of the system.

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7) In considering claim 31, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 19, wherein:

--while the bar code scanner is connected to the portable "rover" unit having the transceiver for recording the GPS signal according to col. 7, lines 42-65 of **Loomis et al.**, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that the so connected rover unit and bar code scanner combination in the teaching of **Loomis et al.** and **Hertel** can be considered a single portable unit and therefore constitutes a single portable device. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention that the rover unit and bar code scanner in the teaching of **Loomis et al.** and **Hertel** can be made integral since they are meant to be functioning together.

8) In considering claim 32, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 19, plus the consideration of claims 25, 27-28 & 31.

9) In considering claims 33-34, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in the consideration of claims 31 and 25 which incorporated the consideration of claim 19.

10) In considering claim 35, **Loomis et al.** and **Hertel** made obvious all of the claimed subject matter as in claim 33, plus the consideration of claim 28.

Response to Arguments

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3. Applicant's arguments filed 1/27/00 have been fully considered but they are not persuasive.

1) While one of skilled in the art would have readily recognized that storage facilities sometimes include shelves and bins for storage of the items and thus the system taught by Loomis et al. would have worked just as well to track/manage items stored in such a storage facility, the above rejection further introduced the Hertel reference to explicitly show that association of item information and location in various facilities such as shopping facilities having floor, store, aisle or shelf where particular items are store to aid in location/retrieval of such item is a known concept. Therefore, the Hertel reference should remove any doubt that there is motivation to associate specifically the location information of storage shelves/bins with item information in a facility in the Loomis et al. invention, and that the claimed invention is obvious.

2) Applicant also argued that it is unclear what the function of the barcode reader is in the Loomis invention. The Loomis invention did not have to go into too much detail of the usage of the barcode reader because it is obviously relying on what is well known and conventional in the art in order to keep the specification concise. As is evident from Applicant's comments on the page marked "3" of the comments filed 1/27/00, lines 3-10, use of a barcode scanner to keep track of item position location in a warehouse for asset/item tracking/management and other purposes is conventional. Therefore, Applicant's argument that the role of the barcode scanner in the Loomis et al. invention in the context of item identification and location (which context is the same as that of the claimed invention) is unclear is not considered persuasive.

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3) Furthermore, the use of a database in a system such as taught by Loomis et al. invention is necessary and/or obvious. A database is needed to keep track and associate the usually vast number of items regarding their information and associated location data in the context of asset management, tracking, inventory and other purposes in which the Loomis et al. invention is operating in. Therefore, Applicant's argument that the Loomis et al. system lacks such a database, or lacks motivation to have such a database, is not considered persuasive.

3) It is noted that claim 33 as well as claim 19 are independent claims.

4) In conclusion, the above rejection is maintained.

Conclusion

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label


"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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5. Any inquiry concerning this communication should be directed to Examiner Benjamin Lee at telephone number (703) 305-0412. The examiner can normally be reached on Monday-Friday, 6:30am-4:00pm. If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass, can be reached on (703) 305-4717.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-8576, Mon-Fri, 8:30am-5:00pm.


BENJAMIN C. LEE
PATENT EXAMINER
GROUP 2736

B.L.
April 8, 2000